

REMARKS

Applicants appreciate the care and attention the Examiner has provided to the application. Applicants also appreciate the willingness of the Examiner to speak with the attorney representing the Applicants. In the telephone interview of August 3, 2003, the prior art reference of the United States Patent issued to Dugas et al. (U.S. Pat. No. 5,612,692) was discussed. Further, the mechanical juncture that the Applicants employ between the skirt portion and the face portion of their key cap was also discussed. Through appropriate amendment to the claims to clarify the previously presented limitation of a mechanical juncture as a mating juncture, it was envisioned that the application would be in condition for allowance.

In the current Office Action, the Examiner has rejected the Claims based on the reference to Patent issued to Dugas et al. Initially in these remarks, Applicants will demonstrate why reliance on such reference is inappropriate. Regardless of the applicability of the Dugas et al. reference, Applicants have offered amendments herein which further clarify other distinctions between the invention of the application and the Dugas et al. reference.

Inapplicability of the Reference

In the current office action, the Examiner has cited as the sole basis for the rejection, the '692 patent issued to Dugas. Applicants respectfully disagree with the appropriateness of this reference as the basis for a rejection of the claims.

In a previous office action, Examiner had rejected the original claims based on the reference of Nopper et al.(U.S. Pat. No.4,181,829). In response to that previous office action, Applicants pointed out the difference between rubber key cap technology (used by Nopper et al.) and thermoplastic resin key caps technology (used by Applicants). As discussed more fully in the previous response to the previous office action, due in part to their differences in molding characteristics, physical characteristics, bonding characteristics, printing characteristics, and relative tensile strength, key caps made of thermoplastics and silicon rubber are not analogous arts within the key cap industry. The reference to Nopper et al. was withdrawn.

As the invention of Dugas et al. also involves rubber-keycap technology, it should be withdrawn as a basis for rejection.

In support of the premise that Dugas teaches a thermoplastic cap, the Examiner has

referenced a statement buried in column 10, lines 55-56, at the end of the detailed description section of that patent (within which description, the housing and other gross components had been discussed in addition to the keycaps) : "[m]ost of the components may be molded from plastic, although other suitable materials may be employed." Such reference, taken out of context, is vague at best as to its teaching. Taken within context, however, it is clear that Dugas et al. do not teach the use of thermoplastic resins for the keycap.

The true teaching with regard to the materials of the key cap, specifically, is found at column 2, lines 23-28 of the Summary Section: "In the present invention, these results are achieved by the use of a unitary light translucent, flexible membrane which is typically formed of *silicon rubber*. *Molded integrally with this membrane are a plurality of domes*, one dome for each key, and a peripheral gasket." (Emphasis added). (See also column 4, lines 39-43, for a similar discussion in the Detailed Description section of the patent.) Moreover, just immediately following the reference quoted by the Examiner is the next sentence at column 10, lines 57-58 which states "Typically, membrane 20 is composed of silicon rubber having a durometer of about 50."

Rubber is necessary for membranous, compressible key cap arrays as used by Nopper et al. and Dugas et al. The purpose of the rubber for the invention of Dugas et al. is further underscored by the need to have flexibility in the fingers. See column 6, lines 9-10.

Thus, it is clear that Dugas et al fails to disclose a *rigid* face portion in the first instance and more particularly that the rigid face portion is made of *thermoplastic first resin*, as taught by Applicants in their previously presented claim 1.

Given that the device of Dugas et al. is of the rubber industry and does not disclose the teachings of the Applicants, it is not prior art upon which a rejection can be appropriately based.

Amendment to Further Clarify the Mechanical Bond
Aspect of the Invention of the Applicants

Even more clearly, Dugas et al. does not teach a mating connection between the face portion and the skirt portion as taught by Applicants. While Dugas et al. illustrate an interface between the key cap face portion and the key cap skirt portion, in general, a mechanical juncture cannot be deduced therefrom. Rather, it is anticipated that such juncture is a Nopper-like rubber-to-rubber, vulcanized, thermal bond. Regardless, to clarify the mating nature of the mechanical juncture of the invention of the Applicants, Applicants offer the current amendments to Claims 1 and 2.

As part of their invention, Applicants teach mechanical joining of the face portion with the skirt portion. This mechanical mating is illustrated in the interaction of interlocking elements 18 (male) and 32 (female)(see Figures 2C and 3C). The amendments offered herein further clarify the nature of the mechanical junction.

A key cap with a thermoplastic, light-transmitting face portion matingly attached to a skirt portion is novel in the industry.

CONCLUSION

Applicants believe that the foregoing amendments favorably resolve the issues raised under 35 U.S.C. §102 and place the claims of the application in condition for allowance. The Examiner is invited to call the undersigned attorney if that would be helpful in resolving any question which might remain.

Respectfully submitted,

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